Back to basics in sepsis treatment

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LETTER

Back to basics in sepsis treatment: critically ill patients need intensive care

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See related viewpoint by Marik and Bellomo, http://ccforum.com/content/17/2/305

Marik and Bellomo reason that stress hyperglycemia might be an essential survival response [1]. We reviewed the same question in this journal, before multi-center studies on glycemic control were published [2]. It strikes us that of almost all novel therapies in septic patients, few appear to withstand time. If everything has been futile, did we cause iatrogenic damage, as suggested [1], and is there reason to become cynical? We think the original studies gave rise to good developments. First, the Rivers protocol led to the implementation of limited sepsis treatment bundles resulting in a mortality decrease. Second, the results and the glycemic control of studies by Greet van den Berghe appeared to be not that simple to achieve in real life. Third, lactate-guided therapy improved outcomes, although without an exactly known mechanism [3]. Fourth, a subset analysis of the Surviving Sepsis Campaign database including nearly 9,000 patients revealed that low-dose steroid treatment is associated with an increase in hospital mortality [4]. Fifth, look at all the hemodynamic optimization trials... Notwithstanding the disappointing results of follow-up studies, the original studies were important because they increased recognition of septic patients, led to more original ideas [5], and to effective treatment bundles not funded by third parties [6]. An important common denominator is the intensive attention that all these studies required for their execution, increasing the recognition of septic patients and re-evaluating treatment in a timely manner. These initial studies should make us humble and proud at the same time.

Authors' response

Paul E Marik and Rinaldo Bellomo

We thank Dr Ligtenberg and colleagues for their comments regarding our paper on stress hyperglycemia [1]. We would argue that tight glycemic control may have led to patients receiving therapy that was harmful (too much insulin) [7], that the Rivers protocol has not been validated and may have led to harm (too much fluid, too much blood) [8,9] and that lactate-guided therapy is a misnomer as an oxygen debt is unlikely in sepsis and this approach will lead to excessive interventions (too much fluid, inotropic agents and blood) [10,11]. The steroid effect reported from the Surviving Sepsis Campaign database may just represent selection bias [4]. We advocate a healthy dose of skepticism rather than cynicism. Furthermore, when it comes to the critically ill, 'less may be more' [12].

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Competing interests
The authors declare they have no competing interests.

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